

## **ABSTRACT**

1 A method and apparatus for performing NMR measurements suppressing contribution to  
2 NMR signals from within the borehole. Within the region of examination, the RF  
3 magnetic field has a spatially varying intensity. NMR signals (free induction decay or  
4 spin echo signals) are inverted to give spin density as a function of field intensity. This  
5 inversion is then mapped to spatial positions using the known RF field variation. The  
6 effect of signals arising from within the borehole can be suppressed. It is also possible to  
7 obtain an azimuthal image of the spin density.

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